

CLAIMS

## WHAT IS CLAIMED IS:

1. A system for representing parameter constraints governing values of interrelated parameters when one or more of the parameters is changed, the system comprising:
  - a plurality of interrelated parameters;
  - a plurality of displays corresponding to said plurality of parameters, having a range of values represented by a dimension in the displays; and
  - means for maintaining said interrelated parameter constraints when one or more of said plurality of displays manifests a change in value.
2. The system of claim 1 wherein said plurality of interrelated parameters maintain a mathematical relationship with one another.
3. The system of claim 1 wherein said interrelated parameters operates in a relation that recognizes adjustment of said interrelated parameters when one parameter out of said related parameters is modified.
4. The system of claim 2 wherein said means for maintaining said interrelated parameter constraints preserves the relationship by causing said interrelated parameters to move in compliance with a change in of said plurality of interrelated parameters.
5. The system of claim 1 wherein a change in constrained value causes constraining values to change.
6. A system for adjusting related constraints on a dynamic basis, the system comprising:
  - a displayable metaphor including a plurality of sliders;
  - a range display means representing range of values of said plurality of sliders;
  - means for constraining said plurality of sliders in relations therewith; and

said plurality of sliders being interrelated parameters having dimensional elements extending through said dimensional elements with each position corresponding to a different value.

7. The system of claim 6 wherein said plurality of sliders constrain one another.
8. The system of claim 6 wherein said plurality of sliders operate as a user interface.
9. The system of claim 6 wherein said plurality of sliders include extension to constrain movement of other sliders.
10. A method for representing parameter constraints in related parameters of a medical device, the method comprising:
  - providing a set of sliders slidable with a range of dimensions, wherein each slider in a set includes an interrelationship;
  - imposing a constraint on each of said slider representing said interrelationship;
  - allowing a dynamic movement of said set of sliders to each represent a change in parameter value; and
  - constraining said set of sliders to change in correspondence with any change in one of said set of sliders.
11. The method of claim 10 wherein said method of constraining includes maintaining a pre-existing relationship between the parameters in correspondence with said change in one of said set of sliders.
12. The method of claim 10 wherein said method of constraining includes a lower slider is overlaid on a constraining slider.